

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

IN RE PORK ANTITRUST LITIGATION

Civil No. 18-1776 (JRT/LIB)

MDL No. 21-2998

This Document Relates To:

**MEMORANDUM OPINION AND ORDER
DENYING PARTIES' MOTIONS TO
EXCLUDE EXPERT WITNESSES**

ALL ACTIONS

Michael J. Flannery, **CUNEO GILBERT & LADUCA, LLP**, 2 City Place Drive, Second Floor, Saint Louis, MO 63141, for Commercial and Institutional Indirect Purchaser Plaintiffs.

Bobby Pouya, **PEARSON WARSHAW, LLP**, 15165 Ventura Boulevard, Suite 400, Sherman Oaks, CA 91403, for Direct Purchaser Plaintiffs.

Kyle G. Bates, **HAUSFELD LLP**, 600 Montgomery Street, Suite 3200, San Francisco, CA 94111, for Plaintiff Commonwealth of Puerto Rico.

Derek T. Ho and Collin R. White, **KELLOGG, HANSEN, TODD, FIGEL & FREDERICK, PLLC**, 1615 M Street Northwest, Suite 400, Washington, DC 20036, for Direct Action Plaintiff Amory Investments LLC.

Robert N. Kaplan, **KAPLAN FOX & KILSHEIMER LLP**, 800 Third Avenue, 38th Floor, New York, NY 10022, for Action Meat Distributors, Inc., Topco Associates, LLC, Alex Lee, Inc./Merchants Distributors, LLC, Associated Food Stores, Inc., Brookshire Grocery Company, Colorado Boxed Beef Co., Certco, Inc., The Golub Corporation, Nicholas & Co., PFD Enterprises, Inc., SpartanNash Company, Springfield Grocer Company, The Distribution Group d/b/a Van Eerden Foodservice Co., URM Stores, Inc., Giant Eagle, Inc., UniPro Foodservice, Inc., and the Quirch Plaintiffs.

Mark A. Singer, **CADWALADER, WICKERSHAM & TAFT LLP**, 200 Liberty Street, New York, NY 10281, for Direct Action Plaintiffs McDonald's Corporation; PJ Food Service, Inc.; Aramark Food and Support Services

Group, Inc.; Target Corporation; Gordon Food Service, Inc.; Glazier Foods Company; Quality Supply Chain Co-Op, Inc.; Sherwood Food Distributors, L.L.C.; Harvest Meat Company, Inc.; Western Boxed Meat Distributors, Inc.; Hamilton Meat, LLC; Jetro Holdings, LLC; Maximum Quality Foods, Inc.; BJ's Wholesale Club, Inc.; Kraft Heinz Foods Company; Winn-Dixie Stores, Inc.; and Bi-Lo Holdings, LLC.

David P. Germaine, **SPERLING & SLATER, P.C.**, 55 West Monroe Street, Suite 3200, Chicago, IL 60603, for Direct Action Plaintiffs Associated Grocers of the South, Inc.; Dollar General Corporation; Dolgencorp, LLC; Meijer, Inc.; Meijer Distribution, Inc.; Publix Super Markets, Inc.; Raley's; United Natural Foods, Inc.; Supervalu, Inc.; Associated Grocers of Florida, Inc.; Unified Grocers, Inc.; Tony's Fine Foods; and Wakefern Food Co.

Joshua J. Rissman, **GUSTAFSON GLUEK PLLC**, 120 South Sixth Street, Suite 2600, Minneapolis, MN 55402, for Consumer Indirect Purchaser Plaintiffs.

Jarod Taylor and **AXINN VELTROP & HARKRIDER, LLP**, 90 State House Square, Hartford, CT 06103 and Lindsey Strang Aberg, **AXINN VELTROP & HARKRIDER, LLP**, 1901 L Street Northwest, Washington, DC 20036, for Defendants Tyson Foods, Inc., Tyson Fresh Meats, Inc., and Tyson Prepared Foods, Inc.

Peter J. Schwingler, **JONES DAY**, 90 South Seventh Street, Suite 4950 Minneapolis, MN 55402, for Defendant Seaboard Foods LLC.

Amarto Bhattacharyya, **KIRKLAND & ELLIS LLP**, 333 West Wolf Point Plaza Chicago, IL 60654, for Defendants Clemens Food Group, LLC and The Clemens Family Corporation.

Plaintiffs in this multidistrict litigation—which now includes three certified classes and dozens of direct action plaintiffs—allege that Defendants, one benchmarking company and some of the nation's leading pork producers and integrators, conspired to limit the supply of pork in order to fix prices in violation of state and federal antitrust laws. Parties now seek to exclude the testimony of the other side's experts ahead of trial.

However, because the Court finds the experts are qualified, their testimony relevant, and their methods reliable, the Court will deny all motions.

BACKGROUND

I. FACTS

The facts of this case have been extensively documented across several of the Court's orders¹ and are detailed more fully in the Court's order on the motions for summary judgment, but the essential facts for the motions to exclude expert testimony are these:

Plaintiffs allege that from at least 2009 to 2018 (the "Conspiracy Period"), America's largest pork producers and integrators, together with benchmarking company Agri Stats,² conspired to limit the supply of pork and thereby fix prices in violation of federal and state antitrust laws. (3rd Am. DPP Compl. ("DPP Compl.") ¶¶ 1, 7, Jan. 15, 2020, Docket No. 431.) Plaintiffs' theory of the case is that each Defendant used at least one of three "levers" to limit their supply: (1) reducing sow herds and restraining hog

¹ See, e.g., *In re Pork Antitrust Litig.*, No. 18-1776, 2019 WL 3752497, at *1–5 (D. Minn. Aug. 8, 2019) (dismissing without prejudice); *In re Pork Antitrust Litig.*, 665 F. Supp. 3d 967, 981 (D. Minn. 2023) (certifying classes).

² Defendants are Agri Stats, Inc. ("Agri Stats"); Clemens Food Group, LLC, and The Clemens Family Corporation (collectively "Clemens"); Hormel Foods Corporation and Hormel Foods, LLC (collectively "Hormel"); JBS USA Food Company ("JBS"); Seaboard Foods LLC ("Seaboard"); Smithfield Foods, Inc. ("Smithfield"); Triumph Foods, LLC ("Triumph"); and Tyson Foods, Inc., Tyson Fresh Meats, Inc., and Tyson Prepared Foods, Inc. (collectively "Tyson").

production, (2) restraining pork production, and (3) and increasing pork exports abroad. (See Pls.’ Opp’n Defs.’ Mot. Summ. J. at 4, Aug. 25, 2024, Docket No. 2461.) As a result of this alleged conspiracy, Plaintiffs allege they paid artificially high prices and thus suffered damages, which would be trebled under the nation’s antitrust laws. (DPP Compl. ¶ 203.)

II. PROCEDURAL HISTORY

In 2018, a series of class and individual actions initiated this action. (*See, e.g.*, Compl., June 28, 2018, Docket No. 1.) The original thirteen putative classes were subsequently grouped into three different classes of pork purchasers—Direct Purchaser Plaintiffs (“DPPs”), Consumer Indirect Purchaser Plaintiffs (“Consumer IPPs”), and Commercial and Institutional Indirect Purchaser Plaintiffs (“Commercial IIPPs”). Each of these three groups then filed consolidated complaints, which underwent two rounds of motions to dismiss.³ *In re Pork*, 2019 WL 3752497, at *9–10; *In re Pork Antitrust Litig.*, 495 F. Supp. 3d 753, 764 (D. Minn. 2020). This multidistrict litigation grew exponentially as many Direct Action Plaintiffs (“DAPs”) also joined the litigation.

Each of the Class Plaintiffs moved for class certification in 2022. *See In re Pork*, 665 F. Supp. 3d at 982. Defendants opposed those motions and also moved to exclude the expert testimony of three of Plaintiffs’ experts—Drs. Singer, Williams, and Mangum—for

³ The DPPs’ consolidated complaint can be found at ECF No. 18-1803, Docket No. 83; the Consumer IPPs’ consolidated complaint can be found at ECF No. 18-1776, Docket No. 74; and the Commercial IIPPs’ complaint can be found at ECF No. 18-1891, Docket No. 63.

the purposes of class certification. *Id.* at 985. The Court denied the Defendants’ motion to exclude the expert testimony and certified all three classes. *Id.* at 1012–13.

Both Plaintiffs and Defendants generated new expert reports during discovery, and Parties now seek to exclude that testimony. Some Direct Action Plaintiffs move to exclude certain opinions of Defendant Tyson’s expert Dr. Lawrence Wu, (Certain DAPs’ Mot. to Strike Certain Ops., June 7, 2024, Docket No. 2252,) while Class Plaintiffs and certain Direct Action Plaintiffs move to exclude the opinions of each of Defendants’ five experts, (Class Pls.’ & Certain DAPs’ Mot. to Exclude Expert Test., June 7, 2024, Docket No. 2354.) Defendants ask the Court to exclude certain opinions of each of Plaintiffs’ six experts. (Defs.’ Mot. to Exclude Expert Test., June 7, 2024, Docket No. 2346.)

III. SUMMARY OF EXPERT TESTIMONY

A. Plaintiffs’ Experts

Plaintiffs have offered six expert reports in this case, which are nearly all accompanied by replies to Defendants’ experts’ critiques of the reports.

Dr. Russell L. Lamb has a PhD in economics from the University of Pennsylvania. (Sealed Expert Rep. of Dr. Russell L. Lamb (“Lamb”) ¶ 2, June 7, 2024, Docket No. 2363-1.) He has worked at the Federal Reserve forecasting food prices, taught agricultural economics at North Carolina State University, and served as an economic consultant to the World Bank and Government of Peru. (*Id.*) Dr. Lamb is currently an adjunct faculty member of the University of Tennessee in the Department of Economics. (*Id.*)

Dr. Lamb has been retained by certain DAPs. (*Id.* ¶ 5.) His report concludes that the economic evidence is consistent with the existence of the alleged conspiracy in this case and inconsistent with each Defendant having acted in its unilateral economic self-interest absent the alleged conspiracy. (*Id.* ¶ 12.) He reaches that conclusion based on his analysis of Defendants' conduct and the structure and economic performance of the pork industry during the alleged conspiracy. (*Id.* ¶ 13.) Dr. Lamb provides an economic regression demonstrating that certain DAPs collectively suffered damages of \$2.359 billion as a result of the alleged conspiracy. (*Id.* ¶¶ 14–15.)

Dr. Russell W. Mangum III has a PhD in economics from the University of Southern California. (Sealed Expert Rep. of Russell W. Mangum III ("Mangum") ¶ 2, June 7, 2024, Docket No. 2363-2.) Professionally, he has served as a staff economist to the Federal Trade Commission's Antitrust Division, as a private practitioner at Nathan Associates, and as an economist at PricewaterhouseCoopers and Analysis Group, Inc. (*Id.*) He now works at Cirque Analytics. (*Id.*)

Dr. Mangum has been retained by the DPPs. (*Id.* ¶ 18.) His report concludes that the structure of the pork packing market was conducive to the formation and success of the alleged conspiracy. (*Id.* ¶ 19.) Dr. Mangum's econometric analysis shows pork production was artificially restricted by 5.9% below the competitive level and that DPPs were charged artificially inflated prices totaling roughly \$5.4 billion during the Conspiracy Period. (*Id.*)

Dr. Hal J. Singer has a PhD in economics from Johns Hopkins University. (Sealed Merits Rep. of Hal J. Singer (“Singer”) ¶ 22, June 7, 2024, Docket No. 2363-4.) He has served as an expert for the Canadian Competition Bureau, U.S. State Attorneys General, and the Federal Trade Commission. (*Id.* ¶ 21.) He has taught Advanced Pricing at Georgetown University and is now an Economics Professor at the University of Utah, where he has taught Antitrust Economics. (*Id.* ¶ 18.)

Dr. Singer has been retained by the Consumer IPPs. (*Id.* ¶ 1.) His report concludes that Defendants had the market power (roughly 80%) necessary to artificially suppress domestic pork supplies, that Consumer IPPs paid artificially high prices due to challenged conduct, and that those damages are quantifiable. (*Id.* ¶ 8.) Dr. Singer estimates Consumer IPPs suffered either \$1.397 billion or \$1.66 billion in damages during the Conspiracy Period, depending on whether he includes sales made to resellers who then sell to retail establishments. (*Id.* ¶ 15.)

Dr. Singer notes that he has not been asked to opine on the existence of the alleged conspiracy and assumes the allegations regarding the existence of collusion are true. (*Id.* ¶ 7.)

Dr. Michael A. Williams has a PhD in economics from the University of Chicago. (Sealed Corrected Expert Merits Rep. of Michael A. Williams (“Williams”) ¶ 4, June 7, 2024, Docket No. 2363-3.) He is a frequent antitrust economics expert in federal court

and previously served as an economist with the Antitrust Division of the Department of Justice. (*Id.* ¶¶ 2–3.)

Dr. Williams has been retained by the Commercial IPPs. (*Id.* ¶ 6.) His report concludes that the pork industry’s structure is conducive to cartel behavior, that Defendants engaged in parallel conduct by reducing domestic supply, and that Defendants acted against their independent self-interests. (*Id.* ¶¶ 11–15.) Dr. Williams also runs a regression to show that the estimated output reduction during the Conspiracy Period compared to but-for output ranges from 2.4% to 9.1% and that overall damages for Commercial IPP class members are \$583.9 million. (*Id.* ¶¶ 17, 32.)

Dr. Jamie McClave⁴ has a PhD in statistics from the University of Florida. (Sealed Expert Rep. of Jamie McClave Baldwin (“McClave”) § 1.0, June 8, 2024, Docket No. 2373-6.) She is a frequent statistical consultant and has served as President of Consulting at Info Tech, Inc. for several years. (*Id.*)

Dr. McClave has been retained by certain DAPs. (*Id.* § 2.0 n.2.) Her report conducts a multiple regression analysis that concludes that prices were elevated above competitive levels during the Conspiracy Period. (*Id.* § 3.0.) Dr. McClave determined that the DAPs included in her analysis collectively suffered damages of \$6.0 billion from the Defendants’ anticompetitive activity during the alleged Conspiracy Period. (*Id.* § 5.0.)

⁴ In her original report, Dr. McClave lists her name as Dr. Jamie McClave Baldwin. In her reply report, she uses Jamie McClave, formerly Baldwin.

Dr. Douglas Zona has a PhD in economics from the State University of New York in Stony Brook. (Sealed Expert Rep. of J. Douglas Zona (“Zona”) ¶ 1, June 8, 2024, Docket No. 2372-4.) He has worked at various economic consulting firms and is generally an applied economist whose expertise is in using economics and econometric tools to analyze antitrust and other litigation issues. (*Id.* ¶ 2, App’x A.)

Dr. Zona has been retained by certain DAPs. (*Id.* ¶ 4 n.1.) His report makes various conclusions: (1) that the pork industry was conducive to collusion during the Conspiracy Period, (2) that Processor Defendants engaged in parallel conduct during the Conspiracy Period, (3) that Defendants agreed to stabilize market shares, reduce sow herds, and divert output from the domestic market to the export market, (4) that the relevant antitrust market in this case is the market for pork products in the United States, and that Defendants’ combined market share was about 80% during the alleged Conspiracy Period, and (5) that the Defendants’ conduct is consistent with collusive action and has harmed competition in the relevant antitrust market for pork products. (*Id.* ¶ 8.)

Dr. Zona did not run a regression analysis until he submitted his rebuttal report in March 2024. (See Sealed Expert Rebuttal Rep. of J. Douglas Zona (“Zona Reply”), June 8, 2024, Docket No. 2372-5.)

B. Defendants’ Experts

Defendants have offered five expert reports in this case. While some Plaintiffs’ experts assume the existence of a conspiracy to proceed to a calculation of damages,

Defendants' experts generally both rebut the existence of the conspiracy and rebut Plaintiffs' experts' damages calculations.

Dr. Bruce A. Babcock is the Associate Dean of the School of Public Policy at the University of California. (Sealed Corrected Expert Rep. of Bruce A. Babcock ("Babcock") at 2, June 7, 2024, Docket No. 2363-7.)⁵ He previously served as the Cargill Chair of Energy Economics and directed Iowa State University's Biobased Industry Center. (*Id.*) He co-owns a crop insurance program. (*Id.*)

Dr. Babcock is retained by Defendant Clemens. (*Id.* at 3.) His report focuses on Clemens's increased production during the Conspiracy Period and concludes that Clemens's actions contradict Plaintiffs' claims that it conspired to reduce pork production. (*Id.* at 1.) Dr. Babcock also posits that pork processors (like Clemens) and hog producers have different economic incentives, and that hog producers faced unique challenges in 2008–2009 and 2012–2013 because of economic recession, increases in corn prices, and droughts. (*Id.*) Finally, he opines that Plaintiffs' allegations of conspiracy are false because Clemens significantly scaled up its pork processing during the Conspiracy Period and specifically invested in a new facility in Coldwater, Michigan that doubled its size and market share in the pork processing industry. (*Id.* at 3–4.)

⁵ Citations are to original page numbers of the report, not to the ECF pagination.

Dr. James A. Levinsohn earned his PhD in economics from Princeton University. (Sealed Expert Rep. of James A. Levinsohn (“Levinsohn”) ¶ 2, June 7, 2024, Docket No. 2363-8.) He is currently a Professor of Global Affairs at Yale University, a Professor of Economics at Yale School of Management, and a Research Associate at the National Bureau of Economic Research. (*Id.* ¶ 1.)

Dr. Levinsohn has been retained by Defendant Seaboard. (*Id.* ¶ 7.) His report concludes that there are no conspiratorial red flags that Seaboard participated in a conspiracy. (*Id.* ¶ 15.) Specifically, Dr. Levinsohn concludes that Plaintiffs’ expert Dr. Singer has not shown that Seaboard underproduced during the alleged period. (*Id.*)

Dr. James Mintert has a PhD in agricultural economics from the University of Missouri. (Sealed Corrected Expert Rep. of James Mintert (“Mintert”) ¶ 1, June 7, 2024, Docket No. 2363-9.) He has served as a professor of Agricultural Economics at Kansas State University and currently serves as the same at Purdue University, where he is the director of the Center for Commercial Agriculture. (*Id.*)

Dr. Mintert has been retained by Defendants’ counsel generally. (*Id.* ¶ 11.) His report disagrees with two assumptions made by Plaintiffs and their experts: that Defendants had control over certain “levers” to control the number of hogs slaughtered for processing into pork products, and that Defendants’ profits would be higher when hog supplies are lower. (*Id.* ¶ 22.) Dr. Mintert concludes that the alleged conspiracy did not exist because Defendants were making unilateral self-interested economic decisions and

because Agri Stats's information exchange was an implausible method of monitoring the alleged conspiracy. (*Id.* ¶¶ 27–30.)

Dr. Lauren J. Stiroh has a PhD in economics from Harvard University. (Sealed Corrected Expert Rep. of Lauren J. Stiroh (“Stiroh”) ¶ 9, June 7, 2024, Docket No. 2363-5.) She is an economist and Senior Managing Director at NERA Economic Consulting. (*Id.* ¶ 1.)

Dr. Stiroh has been retained by Defendants' counsel generally. (*Id.*) Her report concludes that there is no economic evidence of parallel conduct among Defendants during the Conspiracy Period, that Plaintiffs have not articulated a convincing theory about how the cartel might have been sustained, and that Defendants acted consistently with their unilateral self-interests with respect to exports. (*Id.* ¶ 20.) Dr. Stiroh also attacks the reliability of the Plaintiffs' experts' regression models and finds no statistically significant indication of supracompetitive pricing during the alleged Conspiracy Period. (*Id.*)

Dr. Lawrence Wu has a PhD from the University of Chicago. (Sealed Corrected Expert Rep. of Lawrence Wu (“Wu”) ¶ 1, June 7, 2024, Docket No. 2363-10.) He was a staff economist at the Federal Trade Commission and later a visiting scholar at the Stanford Institute for Economic Policy Research before coming to his current position as an economist and President of NERA Economic Consulting. (*Id.*)

Dr. Wu has been retained to speak to Tyson's conduct specifically. (*Id.* ¶ 10.) His report first concludes that the economic evidence does not suggest that Tyson participated in the alleged conspiracy using any of the three levers Plaintiffs' experts identified: reduced outputs, reduced processing capacity, and increased exports. (*Id.* ¶ 13.) The report further concludes that Tyson used Agri Stats reports in a procompetitive way for benchmarking purposes and could not have used those reports to monitor the alleged conspiracy. (*Id.*) Finally, Dr. Wu concludes that there was no economic evidence that Tyson's pork prices were artificially elevated during the Conspiracy Period or that Tyson otherwise benefitted from the alleged conspiracy. (*Id.*)

DISCUSSION

I. STANDARD OF REVIEW

Federal Rule of Evidence 702 governs the admissibility of expert testimony and provides the following:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if the proponent demonstrates to the court that it is more likely than not that:

- (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
- (b) the testimony is based on sufficient facts or data;
- (c) the testimony is the product of reliable principles and methods; and
- (d) the expert's opinion reflects a reliable application of the principles and methods to the facts of the case.

Fed. R. Evid. 702. In essence, there are three prerequisites to admitting expert testimony: (1) the evidence is relevant and helpful for the trier of fact, (2) the proposed witness is qualified to assist the trier of fact, and (3) the proposed evidence is reliable. *Lauzon v. Senco Prods., Inc.*, 270 F.3d 681, 686 (8th Cir. 2001). For evidence to be reliable, it must be based upon sufficient facts or data, be a product of reliable principles and methods, and the witness must apply the principles and methods reliably to the facts of the case. *Id.*

The district court has a gate-keeping obligation to make certain that all testimony admitted under Rule 702 satisfies these prerequisites and that “any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 589 (1993). The proponent of the expert testimony has the burden of establishing by a preponderance of the evidence that the expert is qualified, that his or her methodology is scientifically valid, and that “the reasoning or methodology in question is applied properly to the facts in issue.” *Marmo v. Tyson Fresh Meats, Inc.*, 457 F.3d 748, 758 (8th Cir. 2006). Expert testimony is inadmissible if it is “speculative, unsupported by sufficient facts, or contrary to the facts of the case.” *Id.* at 757.

“[T]he trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.” *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999). However, the Eighth Circuit has held that “[c]ourts should resolve doubts regarding the usefulness of an expert’s testimony in favor

of admissibility.” *Marmo*, 457 F.3d at 758. “As a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination.” *Loudermill v. Dow Chem. Co.*, 863 F.2d 566, 570 (8th Cir. 1988). “Only if [an] expert’s opinion is so fundamentally unsupported that it can offer no assistance to the jury must such testimony be excluded.” *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 929–30 (8th Cir. 2001) (quoting *Hose v. Chi. Nw. Transp. Co.*, 70 F.3d 968, 974 (8th Cir. 1995)).

In this case, neither party appears to dispute the qualifications of the experts. Their arguments center instead on the relevancy and reliability of the reports.

II. DIRECT ACTION PLAINTIFFS’ MOTION

Certain DAPs move to exclude certain opinions of Dr. Lawrence Wu. Specifically, they move to exclude the following of Dr. Wu’s opinions:

- (1) “Tyson’s name guesses” of the anonymized “names of competitor plants” in the Agri Stats reports “were unreliable” (Wu ¶ 185);
- (2) “Tyson used Agri Stats reports for procompetitive benchmarking purposes,” (*id.* ¶ 13), and “used Agri Stats to reduce its costs and to improve the efficiency of its operations,” (*id.* ¶ 177), “to adjust product mix and exports,” (*id.* ¶ 178), and to “identify specific areas for capital investment,” (*id.* ¶ 179);
- (3) Based on his examination of five products with supposed “opportunities” for Tyson to raise prices, Exhibits 31-35 “show[ed] that none of the products show a sharp or sustained increase in price after May 2009,” (*id.* ¶ 196); and
- (4) Dr. Wu’s regressions in columns (c), (d), (e), and (f) in Exhibits 38 through 42.

(Mem. Supp. Certain DAPs' Mot. to Strike Certain Ops. at 1, June 7, 2024, Docket No. 2255.) The Court will deny the DAPs' request to exclude each of these opinions.

A. Tyson Name Guesses

Certain DAPs first argue the Court should exclude Dr. Wu's opinion that Tyson could not reliably deanonymize the Agri Stats reports. Specifically, in his report, Dr. Wu characterizes Tyson's "name guesses" of the anonymized reports as "unreliable," and thus concludes that Tyson could not have plausibly used Agri Stats to monitor its competitors. (Wu ¶ 185.)

To combat this assertion, DAPs contrast Dr. Wu's ability to guess the identities of seventeen plants at random with Tyson's actual guesses in real time when they had access to Agri Stats's data. In a deposition, when given a random list of seventeen plants, Dr. Wu could only correctly identify two. In contrast, when paired with anonymized data provided by Agri Stats, Tyson's Deb McConnell correctly identified twelve. DAPs therefore argue there is no scientific basis for Dr. Wu's "demonstrably false" opinion that Tyson's name guesses of the anonymized names were unreliable or inaccurate.

But Plaintiffs have not shown that Dr. Wu's methods are unscientific. Dr. Wu merely concludes that the Agri Stats reports were anonymous enough that competitors could not have reliably used them to monitor their competitors' sensitive information. That can be true even if industry experts would have a better chance of identifying competitors with Agri Stats data than they would if given a list at random.

DAPs are better off simply discrediting Dr. Wu’s conclusions on cross-examination, if they can. *See Daubert*, 509 U.S. at 595 (“The focus, of course, must be solely on principles and methodology, not on the conclusions that they generate.”). Because proponents have shown by a preponderance of evidence that there is some reliable basis for Dr. Wu’s opinions, the Court will deny this part of DAPs’ motion.

B. Pro-Competitive Nature of Agri Stats Reports

DAPs next argue that Dr. Wu’s opinions that the Agri Stats reports were pro-competitive should be excluded because they were not based on the Agri Stats reports themselves but rather on spreadsheets prepared by Tyson executive Deb McConnell.

However, this argument is unfounded. Dr. Wu’s report and testimony both make clear that he considered and relied upon the Agri Stats reports themselves to reach his conclusions. (*See Wu* ¶ 38 & nn.75–79; Sealed Dep. Tr. Lawrence Wu (“Wu Dep.”) 140:11–141:15, June 7, 2024, Docket No. 2257-2.) That Dr. Wu also relied on McConnell’s spreadsheets—which themselves summarized parts of the reports—does not mean his opinion was not based on “observations coupled with expertise.” *Shuck v. CNH Am., LLC*, 498 F.3d 868, 875 (8th Cir. 2007).

The Court will deny this part of DAPs’ motion.

C. Tyson’s Opportunities to Raise Prices

DAPs next argue that Dr. Wu’s opinion that Tyson had opportunities to raise prices in May 2009 was not supported by relevant facts in the record and should be excluded.

In his report, Dr. Wu reviews the work of Dr. Russell Mangum, Plaintiffs' expert. (Wu ¶ 196.) Dr. Mangum had analyzed an Agri Stats Sales Report dated May 6, 2009, and suggested that the report "identified opportunities for Tyson to raise its prices on specific pork products—boneless butts, skin-on belly, trim, skin, and stomachs." (*Id.*) However, Dr. Wu disagrees with that conclusion and demonstrates that, in response to the supposed opportunity, Tyson did not raise its prices on those products.

DAPs point out that the report Dr. Wu refers to, while dated May 6, 2009, was actually compiling data from a year prior. Therefore, they argue, Dr. Wu's opinion is not supported by relevant facts. But DAPs miss the point of Dr. Wu's analysis. Dr. Wu is noting that, once Tyson became aware of supposed "opportunities" found in the 2009 report, Tyson did not respond with a price increase. It is irrelevant how much of a lag existed between the time period upon which the data was based and when Tyson became aware of the data. What matters is whether, in response to finding out an opportunity existed, Tyson seized it. Dr. Wu opines Tyson did not. To the extent DAPs disagree, they may cross-examine and respond with their own reports showing Tyson did.

The Court will deny this part of DAPs' motion.

D. Multicollinearity of Dr. Wu's Regressions

DAPs finally argue that Dr. Wu's regression models are unreliable and irrelevant.

First, they argue that the regression is unreliable because Dr. Wu includes two similar variables that measure disease and productivity—pigs per litter and piglet loss

rate—thereby resulting in multicollinearity. Defendants (and Dr. Wu) counter that these are really two different variables: “piglet loss rate has more to do with disease, whereas the pigs per litter had more to do with the hog production process.” (Wu Dep. 227:6–228:18.)

Multicollinearity is a frequent issue courts face in *Daubert* motions.

Multicollinearity problems typically arise when the independent variable is correlated with one of the control variables. If the control variables move together with the independent variable, it becomes impossible to isolate the effect of the independent variable on the dependent variable—which, after all, is the goal of regression analysis. The multicollinearity problem manifests itself through low statistical significance of the independent variables. Because of the correlation between the explanatory variables, there is insufficient variation in the data set to produce statistically significant results.

Reed Constr. Data Inc. v. McGraw-Hill Cos., Inc., 49 F. Supp. 3d 385, 404 (S.D.N.Y. 2014), *aff’d*, 638 F. App’x 43 (2d Cir. 2016). Though the Eighth Circuit has not explicitly ruled on multicollinearity’s effect on *Daubert* motions, other circuits have held that “the inclusion of an irrelevant or multicollinear variable[] will go to the probative value of the analysis, not its admissibility.” *Sobel v. Yeshiva Univ.*, 839 F.2d 18, 36 (2d Cir. 1988). “The fact that [an expert’s] model may be tainted by multicollinearity goes purely to its weight, and is not a reason to strike it.” *In re Air Cargo Shipping Servs. Antitrust Litig.*, No. 06-1175, 2014 WL 7882100, at *19 (E.D.N.Y. Oct. 15, 2014), *report and recommendation adopted*, No. 06-1775, 2015 WL 5093503 (E.D.N.Y. July 10, 2015).

The Court agrees that any issues with multicollinearity could be brought up to attack the regression during trial, so this issue goes to weight and not admissibility. The Court will therefore deny this part of DAPs' motion.

Separately, DAPs argue that the regression should be excluded because Dr. Wu arbitrarily included both three-month and six-month lagged plant and hog costs in his regression, rendering it unreliable.

Defendants counter that Dr. Wu only included both three-month and six-month lagged costs to harmonize the regressions of all four of Plaintiffs' experts, who used no lag (Dr. Singer), a three-month moving average (Drs. Lamb, William), and a six-month lag of a three-month moving average (Dr. Mangum). They also call out DAPs for conflating two distinct steps of Dr. Wu's analysis, one that tested for omitted variable bias (step 2) and another that determined how the Plaintiffs' experts' estimates change when using Tyson costs instead of industry costs (step 3).

Defendants' explanations for their regression choices are plausible, and to the extent there are issues, DAPs may bring them out in cross-examination. Overall, the Court does not find anything particularly troubling about the economic theory underpinning Dr. Wu's regression choices, so it will deny this part of DAPs' motion.

* * *

The Court will deny DAPs' motion in full because Defendants have shown that Dr. Wu has specialized knowledge that will help the jury, his testimony is based on sufficient

facts and data, he uses reliable principles and methods, and he has reliably applied them to the facts of the case.

III. CLASS PLAINTIFFS AND DAPS' MOTION

Separately, Class Plaintiffs and certain DAPs (collectively, "Plaintiffs") move to exclude certain opinions of Drs. Lauren J. Stiroh, James Mintert, Bruce Babcock, James A. Levinsohn, and Lawrence Wu. They do so on two grounds: (1) that the experts impermissibly opine that absolute output increases refute the conspiracy alleged by Plaintiffs, and (2) that the experts mischaracterize "parallel conduct." Most of these arguments go to the relevance of the issues the jury will need to decide, rather than the reliability of the experts' methodologies.

A. Absolute Output Increases

Plaintiffs first argue that the Court should exclude Defendants' experts' opinion that increases in absolute output refute the conspiracy alleged by Plaintiffs.

Plaintiffs have generally alleged that Defendants engaged in a conspiracy to keep domestic pork output below the competitive level to artificially inflate prices, both by restricting output generally and diverting more output to exports. Restricting output below the competitive level, however, does not necessarily mean reducing output in absolute terms. It could also mean limiting the output increases to a level below what the increase would have been but for an output-fixing conspiracy.

Plaintiffs allege Defendants’ experts improperly refute their conspiracy allegations by simply showing that outputs increased during the Conspiracy Period. To some extent, this is true. (See, e.g., Stiroh ¶¶ 25–27 (“Industry-wide production increased during the alleged Conspiracy Period,” and “export growth relative to total production actually slowed during the alleged Conspiracy Period.”); Babcock at 10 (“Clemens increased production of its own hogs during Plaintiffs’ alleged conspiracy period and significantly increased its hog supply.”); Levinsohn ¶ 47 (“Seaboard never intentionally cut production during the alleged conspiracy period,” and “Seaboard’s production decisions are not conspiratorial red flags.”); Mintert ¶ 18 (characterizing the assignment as assessing “whether Defendants’ decisions with respect to slaughter volume and capacity utilization are consistent with an allegedly conspiratorial agreement to reduce output in the hog and pork markets”); Wu ¶ 133 (“[I]nstead of decreasing its capacity, Tyson actually increased its capacity by six percent from 20.1 million heads in 2009 to 21.3 million in 2020.”).)

Plaintiffs rely primarily on *In re Mushroom Direct Purchaser Antitrust Litigation*, No. 06-0620, 2015 WL 5766929 (E.D. Pa. Aug 27, 2015). There, in rebutting plaintiffs’ damages expert showing the difference between a competitive market and an anticompetitive market, defendants’ expert replied with an analysis of absolute values of mushroom output and prices. *Id.* at *4. The court excluded that rebuttal because the relevant inquiry was but-for production and prices, not absolute changes. *Id.*

But Plaintiffs' arguments are misplaced. First, even if not fatal to the alleged conspiracy, the fact that output increased in absolute terms is helpful information for the jury, especially as Plaintiffs have arguably alleged that Defendants at various times cut production in absolute terms.

Second, part of the reason Defendants' experts focus on showing increases in output is to refute the idea that any Defendant ever acted against its economic self-interest. Their experts are attempting to explain the self-interested business rationales for the decisions Defendants made throughout the alleged conspiracy. For example, Dr. Babcock's report not only shows that Clemens's production more than doubled during the alleged conspiracy in absolute terms, but that during the alleged conspiracy Clemens invested heavily in its new Coldwater facility that dramatically ramped up production—a decision that would be wholly inconsistent with a supply-restriction conspiracy.

Finally, the *Mushroom* litigation also does Plaintiffs no favors. There, experts were only opining on the value of damages. Here, the relevant question is much broader and goes to whether the conspiracy existed in the first place. To disprove the conspiracy, Defendants need to be able to show that they made production decisions in absolute terms that were in their own economic self-interest.

Overall, the jury can properly weigh both sides' experts and information on both the relative and absolute output increases and make an informed decision. To the extent

Plaintiffs think Defendants' experts are missing the point by focusing solely on absolute output levels, they can bring that out in cross-examination.

The Court will deny this part of Plaintiffs' motion.

B. Parallel Conduct

Plaintiffs next argue that the Court should exclude Defendants' experts' opinions that Defendants did not engage in "parallel conduct" because those experts use the phrase in a way that mischaracterizes the law and lacks any economic basis.⁶ Specifically, they attack Defendants' assumption that parallel conduct must be taking the same anticompetitive actions at the same time. (See *Stiroh* ¶¶ 31–34 (finding no evidence Defendants "changed in the same direction at the same time"); *Mintert* ¶ 165 ("[M]y analysis shows that the year-over-year change in head slaughtered across Defendants did not appear to vary consistently in the same direction or at the same magnitude during the Alleged Conspiracy Period.").)

Plaintiffs are right that each Defendant need not move in stepwise fashion to prove parallel conduct. See *Interstate Cir., Inc. v. United States*, 306 U.S. 208, 227 (1939) ("[A]n unlawful conspiracy may be and often is formed without simultaneous action or

⁶ In their reply brief, Plaintiffs also argue they need not even prove parallel conduct in the first place. Therefore, say Plaintiffs, Defendants' experts impermissibly opine that if they prove a lack of parallel conduct, it is proof of lack of a conspiracy. The Court will address this argument more clearly in its order on the motions for summary judgment, but for now, it is sufficient that Defendants are rebutting at least one theory of proving a conspiracy by circumstantial evidence: parallel conduct with plus factors.

agreement on the part of the conspirators.”); *In re Domestic Airline Travel Antitrust Litig.*, 691 F. Supp. 3d 175, 201 (D.D.C. Sept. 12, 2023) (noting a conspiracy to exercise capacity discipline did not require “identical changes in capacity among participants”).

However, Defendants have never claimed that precise stepwise movements need be proven. The Stiroh report, for example, only claims to find no evidence of parallel conduct “in the same direction,” not the same amount. (Stiroh ¶ 34.) Indeed, Plaintiffs cite no case in which expert testimony on parallel conduct has been excluded at the *Daubert* stage, relying instead mostly on cases at summary judgment.

Because there is nothing in Defendants’ expert reports that calls into question their reliability as it relates to parallel conduct, the Court will deny this part of Plaintiffs’ motion.

* * *

Overall, the Court will deny Plaintiffs’ motion to exclude Defendants’ expert reports in full because Defendants have shown that their experts have specialized knowledge that will help the jury, their testimony is based on sufficient facts and data, they use reliable principles and methods, and they have reliably applied them to the facts of the case.

IV. DEFENDANTS’ OMNIBUS MOTION

Defendants move to exclude the reports and testimony of each of Plaintiffs’ experts: Drs. Russell Mangum, Michael Williams, Hal Singer, Russell Lamb, Jamie McClave, and Douglas Zona.

Defendants offer a few broadside attacks against Plaintiffs' experts and a few specific attacks against individual reports. Virtually all of their attacks go to the reliability of the experts' methodologies, not their relevance to the issues the jury will need to decide nor the experts' qualifications.

A. Broadside Attacks

First, Defendants argue that Plaintiffs' experts' regressions are facially absurd because they predict a but-for universe of constant increases in hog production. This cannot be so, say Defendants, both because the 2008 financial crisis almost certainly would have led to decreases in hog supply in the early part of the conspiracy period and because, more generally, the industry is cyclical and constantly moves through periods of growth and cuts.

Plaintiffs do not squarely address this argument in their briefing. However, the counterargument seems obvious: even in an industry that is cyclical, a but-for prediction likely has to smooth out its predictions, even if the individual years will wind up being more cyclical.

Second, Defendants argue that Plaintiffs' experts improperly use 2008 as a benchmark for the Conspiracy Period when that year was marked by chaos. Plaintiffs use 2005 (or 2004) through 2008 as a benchmark period to calculate alleged overcharges for the Conspiracy Period of January 2009 through June 2018. But 2008 was a particularly strange year in the pork industry: high feed prices led to a massive reduction in demand,

while a new vaccine led to an unexpected bump in supply. Together with the financial crisis of 2008, hog producers were losing up to \$30 a head on every hog sold, leading to natural cuts in supply the next year. Plaintiffs counter that including the year prior to the alleged conspiracy is standard practice and that they have included other variables that help control for the 2008 crisis regardless.

The Court has already considered this precise issue and found it meritless. *In re Pork Antitrust Litig.*, No. 18-1776, 2024 WL 2060386, at *12 (D. Minn. May 8, 2024) (“[I]ncluding 2008 is not grounds for excluding the experts’ testimony because they accounted for many of the factors that made 2008 an outlier year.”). The Court’s mind has not changed.

Third, Defendants argue Plaintiffs’ experts improperly excluded hog producer margins as a variable in their regressions, instead relying on hog costs as a substitute. Defendants urge that this variable is critical: the primary variable a hog producer considers when deciding how many hogs to produce is the profit they will be able turn that year. Naturally, as margins increase, hog farmers are incentivized to produce more; as they decrease, they are likely to produce fewer head of hogs. Specifically, they say that every expert (including the USDA) that tries to predict hog supply uses hog margins as a variable in their models.

Plaintiffs counter that they have accounted for this variable in other ways and that including it here in a price-fixing conspiracy would create endogeneity problems—that is,

the purpose of the conspiracy is to set prices, so the models should not attempt to control for profit directly. Indeed, they contend it is Defendants' models with a problem because they attempt to turn profits into an independent variable, when a proper model would use it as a dependent variable to determine the effect of the conspiracy on profits.

Overall, "a regression analysis does not become inadmissible as evidence simply because it does not include every variable that is quantifiable and may be relevant to the question presented[.]" *Maitland v. Univ. of Minn.*, 155 F.3d 1013, 1017 (8th Cir. 1998). As with most other issues argued in these motions, this is one for the jury to disentangle, and the diverse choice of variables in experts' regressions is not enough to render any one of them unreliable at this stage.

Fourth, Defendants argue Plaintiffs' experts fail to separate lawful from unlawful conduct. The Court already addressed this argument at class certification. *In re Pork*, 2024 WL 2060386, at *10 ("[A]n expert need not fully disaggregate lawful and unlawful conduct."); *see also In re Broiler Chicken Antitrust Litig.*, No. 16-8637, 2022 WL 1720468 at *10 (N.D. Ill. May 27, 2022) ("Comcast does not impose a requirement to 'disaggregate lawful and unlawful conduct.'"). The Court's mind has not changed.

Overall, none of the broadside attacks, individually or in their aggregate, demonstrate Plaintiffs' experts have used unreliable methodology in their reports. The Court will thus deny the motion as it relates to these generalized attacks.

B. Specific Attacks

Defendants also launch missives against individual expert reports. The Court will summarize those arguments, along with Plaintiffs' responses, and then address them in bulk at the end.

First, Defendants argue Dr. Singer's export regression model ignores international demand. Plaintiffs counter that inclusion of different control variables are not grounds for exclusion under *Daubert* and that regardless Dr. Singer accounted for changes in international demand through a weighted pork exchange rate index. Inclusion of that index controls for fluctuations outside the United States that would influence the relative profitability of exporting pork rather than selling it domestically.

Second, Defendants argue Dr. Zona's capacity utilization opinions fail to support an inference of conspiracy. Specifically, they wish to exclude Dr. Zona's opinion that Defendants reduced their capacity utilization in a manner consistent with their alleged conspiratorial goals because he does so based on "no methodology whatsoever." *Ahlberg v. Chrysler Corp.*, 481 F.3d 630, 635–36 (8th Cir. 2007). Plaintiffs counter that Dr. Zona's opinions are not based on "no methodology whatsoever" but rather on his expertise as an economist. That experience allowed him to show that Defendants often acted against their own self-interest in furtherance of the conspiracy.

Third, Defendants argue Dr. Williams's untested and unreliable volume of commerce calculation for Puerto Rico should be stricken. Plaintiffs counter that Dr.

Williams's methodology, far from being novel, is merely simple arithmetic. He multiplied the total shipment of pork products to Puerto Rico by Defendants' share and the share of relevant products to calculate Puerto Rico's relevant pork purchases.

Fourth, Defendants argue Dr. McClave's damages opinions are far afield of what *Daubert* requires. Specifically, they say the model is extremely sensitive to inclusion of a standard "time trend" variable, which is typically used to control for general technological or efficiency increases over time. Should that variable be introduced, it would cause the purported overcharge to disappear. Plaintiffs counter that Dr. McClave accounted for this variable with two other variables: the ISU farrow to finish cost and pre-wean piglet mortality rate, which Plaintiffs argue capture the effect of changes in cost on changes in prices of pork products, including technological improvements or efficiency gains.

The attacks on Drs. Singer and McClave have to do with the inclusion of certain control variables. Courts generally find these are questions for the jury to consider and are not grounds for admissibility. *Maitland*, 155 F.3d at 1017. Defendants can undermine the credibility of these experts on cross-examination, but their admissibility is proper because their methods are reliable and properly applied to the facts of this case.

The attacks on Drs. Zona and Williams go to the reliability of their methodologies. But "[t]here is no single requirement for admissibility as long as the proffer indicates that the expert evidence is reliable and relevant." *Russell v. Whirlpool Corp.*, 702 F.3d 450, 456–57 (8th Cir. 2012). Dr. Zona relied on his extensive experience as an economist in

identifying ways in which Defendants acted against their self-interest in furtherance of the conspiracy, and Dr. Williams performed simple arithmetic that needed no peer-reviewed research to back up his methodologies.

Overall, Plaintiffs have shown that their experts' reports are relevant to the issues the jury will need to decide, that their methodologies are reliable, and that the experts themselves have excellent qualifications. None of them should be excluded under *Daubert*.

CONCLUSION

The Court will deny all three *Daubert* motions in full. Plaintiffs' two motions to exclude Defendants' expert reports over disagreements about characterizing output and parallel conduct fail because the challenged testimony is sufficiently grounded in reliable methodologies and relevant to the issues at hand, with any disputes more appropriately addressed through cross-examination. Similarly, Defendants' motion to exclude Plaintiffs' expert reports does not meet the threshold for exclusion, as their methodologies are well-supported, and their analyses are pertinent to Plaintiffs' claims.

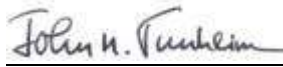
Allowing both sides' expert testimony to proceed ensures the jury can evaluate the competing interpretations of the complex economic evidence in this case.

ORDER

Based on the foregoing, and all the files, records, and proceedings herein, **IT IS HEREBY ORDERED** that:

1. Direct Action Plaintiffs' Motion to Strike Certain Opinions of Dr. Lawrence Wu [Docket No. 2252] is **DENIED**;
2. Plaintiffs' Motion to Exclude Expert Testimony [Docket No. 2354] is **DENIED**;
and
3. Defendants' Motion to Exclude Expert Testimony [Docket No. 2346] is **DENIED**.

DATED: March 31, 2025
at Minneapolis, Minnesota.


JOHN R. TUNHEIM
United States District Judge